

REMARKS

Claims 9, 11, and 13-20 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Claim 11 is objected to because it is dependent on cancelled claim 10. Claim 11 has been amended to depend from independent claim 9. This objection, therefore, is moot.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mitsuru (JP 2000-98415). This rejection is respectfully traversed.

Claims 1 and 8 have been cancelled. As such, this rejection is moot.

REJECTION UNDER 35 U.S.C. § 103

Claims 3-5 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mitsuru (JP 2000-98415) as applied to claims 1 and 8, above. This rejection is respectfully traversed.

As stated above, claims 1 and 8 have been cancelled. Claims 3-5 have also been cancelled, and claim 19 has been amended to depend from claim 9. As such, this rejection is moot.

Claims 9, 11, 13-18, and 20-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mitsuru (JP 2000-98415) in view of Satoh (USPN 6,315,440). This rejection is respectfully traversed.

Claim 9 has been amended and rewritten. Claim 9 now calls for a liquid crystal device comprising a flexible substrate that is connected to one of the substrates and has a bent shape with an inner surface on an inner side of the bent shape. Claim 9 now also calls for a light emitting device mounted on the flexible substrate, wherein the flexible substrate is bent around a light receiving surface of the light guide, and the light emitting device is disposed on the inner surface of the flexible substrate. Lastly, claim 9 has been amended to call for a light emitting surface of the light emitting device to include a light emission point and a projection portion, wherein the light emission point confronts the light receiving surface, the projection portion is disposed at a position other than where the light emission point confronts the light receiving surface of the light guide, and the bent shape of the flexible substrate locates the projection portion of the light emitting surface in the recessed portion of the light receiving surface for mounting the light emitting device to the light receiving surface of the light guide.

Claim 20 has been amended in a similar manner.

Applicants respectfully assert that the claimed liquid crystal devices are not obvious in view of the proposed combination of Mitsuru and Satoh. That is, the Examiner alleges that Mitsuru substantially teaches the claimed invention, but fails to teach a light guide having a light receiving surface including a recess, and a light emitting surface of a light emitting device that has a projection portion that is disposed in the recess. Notwithstanding, the Examiner alleges that it would have been obvious to

modify the device of Mitsuru with Satoh's teaching of a flexible substrate including through holes that are connected to positioning bosses provided on the back side of a holding member because to position two parts using positioning means such as the through holes and positioning bosses is conventional and available as general knowledge.

Although Satoh is evidence that it is known to connect two parts together using through holes and positioning bosses, Applicants respectfully assert that there is no suggestion or motivation in either Mitsuru or Satoh to connect a light emitting device that is mounted on a flexible substrate to a light guide by locating projection portions formed on the light emitting device into a recess formed in the light guide. This is evidenced by the fact that both Mitsuru and Satoh fail to teach connecting a light emitting device to a light guide.

Specifically, referring to Figure 1 of Mitsuru, it can be seen that the light emitting device 3 is not connected to the light guide 7. With respect to Satoh, as can be seen in both Figures 3 and 5, the light emitting devices 23 are formed on a circuit board 9, which is disposed downward and away from the planar light guide 20. Since each of these references, both singularly and in combination, fail to teach this element of the claims, Applicants respectfully assert that the Examiner has not considered the claimed invention as a whole, and is using impermissible hindsight reasoning in maintaining the rejection of the claims.

More specifically, the Examiner is using the teachings of the claimed invention against it. That is, the inventors of the claimed invention sought a liquid crystal device that could be made with an increased display size, but with a smaller case to hold the

electrical components of the display device. Further, the inventors sought a device with little deviation among its many elements, and with a bright display. To accomplish this task, the inventors of the claimed invention utilized a flexible circuit board that is smaller and easily movable within a case that holds the liquid crystal device. In this manner, the device components take up less space in the case because devices such as wirings, light emitting devices, and terminals can be formed on the flexible circuit board.

Moreover, to further reduce the space present between the flexible circuit board and the display, and in turn further reduce the size of the display case, the inventors discovered that they could connect the light emitting device to the light guide by forming projection portions on the light emitting device that can be disposed within a recess that is formed in the light guide. Surprisingly, this configuration also yielded an advantage in that the light emitting surface of the light emitting device would not deviate relative to the light guide. As such, the inventors of the claimed invention developed a liquid crystal device that utilizes a reduced display case and has an increased brightness.

Another advantage of these claimed liquid crystal devices is that the light emitting device is attached to the light guide without being embedded in the light guide. In this manner, heat from the light emitting device is easily diffused. In contrast, when the light emitting device is embedded in the light guide, the heat from the light emitting device can cause deviation in the amount of light emitted from the light emitting device.

The Examiner has neglected the above advantages and inventive steps taken by the inventors of the claimed invention by picking and choosing among the teachings of Mitsuru and Satoh to reconstruct the claimed invention. In so doing, the Examiner has disregarded the claimed invention as a whole, and distilled the claimed invention down

to a “gist” or “thrust”. The “gist” or “thrust” that the Examiner has distilled the claimed invention down to, however, is still not taught by either Mitsuru or Satoh. Specifically, neither Mitsuru nor Satoh teach, suggest, or provide motivation to connect a light emitting device to a light guide by locating a projection portion formed on the light emitting device to a recess formed in a light receiving surface of a light guide. As such, the claimed invention would not have been obvious.

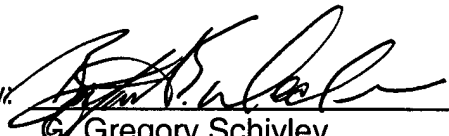
Accordingly, reconsideration and withdrawal of the claimed invention is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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